Region 1 FY 2013 Invasive Species Control Program Proposal

Refuge/complex name: Tualatin River NWR

Project title: Wet prairie enhancement – Phase III

Total amount requested: $20,175

Project description: In 2011 the refuge embarked on restoration and enhancement of 45 acres of wet prairie that supports federally threatened Nelson's checker-mallow and falls within the Portland Recovery Zone of the Prairie Species Recovery Plan. The prairie was being invaded by reed canary grass (RCG) that threatened the viability of Nelson's checker-mallow and a host of other native plant species. In the first two phases of the project the refuge contracted with a consultant to remove and store the checker-mallow and treat the RCG by mowing, disking, and applying herbicide. The third and final phase of this project will include a final application of herbicide, replanting checker-mallow, installation of other native plants, and seeding of grasses.

Comment [BFW1]: A novel approach to RCG control & T&E species!

Distinct project with well-defined objectives (10 points): This project seeks to eliminate RCG from both the wet prairie and adjacent wet margins that provide a seed source. To date efforts have been very successful in removing about 90% of RCG from the area. This final phase is necessary to build upon past success and return the prairie to a native condition by removing lingering areas of RCG. This final phase will be intensive and targeted to ensure success. Additionally, native grasses and forbs will be planted to restore the prairie, and native trees and shrubs will be planted in the annually wet margins of the prairie to shade out adjacent areas to prevent regrowth of RCG. This is currently the largest prairie restoration site on the refuge and is near lands that are under prairie restoration efforts by our partners. Future partnering or easement programs could potentially tie this project into larger wet prairie restoration efforts helping to meet species recovery goals. This project is also supported by the refuge's draft comprehensive conservation plan.

Comment [BFW2]: I like the tie in with partners and adjacent lands.

Potential for maximum control (10 points): The scope of this multi-phased project was beyond management capability of the refuge, hence, the reason for hiring a contractor with decades of native habitat restoration experience. The combination of intensive RCG control followed with native grass establishment and subsequent strategically timed spot spraying should significantly reduce RCG to levels that could be maintained through annual or semi-annual spot spraying efforts. Additional funding could be required for contract spraying in subsequent years, but over time, refuge staff should be able to manage control of this species.

Comment [BFW3]: Okay, but if you get this funding, it will probably be for only 1 year.

Biological benefit to priority species or BIDEH (10 points): Prior to treatment over 1,000 federally threatened Nelson's checker-mallow plants were removed, potted, and maintained by the contractor. Those plants are now much larger and will be replanted during 2013 as part of this project. Prior to removal, the plants were already reproducing and should continue to do so in the coming years helping to reach zone recovery goals and eventually assist in recovery of this species. In addition, native prairie plant species will be planted as part of this project to provide biodiversity to the project area. The 45-acre restoration site meets the minimum size

requirement to support sensitive species such as western meadowlark, streaked-horned lark, and other grassland nesting birds. Indeed, with properly timed herbicide treatments thus far, many native plant species have continued to flourish on the area.

Comment [BFW4]: Are they present? Will they use the RCG or native prairie equally? (I assume not, but an explicit explanation could bolster points here).

Utilizes the principles of Integrated Pest Management (5 points): Our strategy has been to use a multi-phased approach of mowing, disking, and herbicide application. For the remainder of the project an early detection rapid response model will be followed to ensure no reinfestation of RCG will occur on this site. Regular monitoring will be conducted to detect any invasion of RCG or other non-native species. Planting of native species that compete well with RCG will help to prevent reinfestation.

Monitoring to document and evaluate project success (5 points): Pre-treatment monitoring prior to phase I of the project included sampling for Nelson's checker-mallow survival, and line transect surveys for plant species identification and density. Post-treatment monitoring will include area search for RCG, sampling for Nelson's checker-mallow survival, and sample plots and/or line transect survey to determine survival and growth of newly installed native plants.

Comment [BFW5]: Pre and post-restoration bird monitoring could have been cool.

Involves matching funds (*not required*) or in-kind support from partners (5 points): This project is supported by Bonneville Power Administration's Fish and Wildlife Mitigation program. The Friends of Tualatin River National Wildlife Refuge provided volunteer labor for initial planting of Nelson's checker-mallow.

BPA matching funds.

Year	Amount	Activity
2011	$41,971	Contract – Enhancement Phase I
2012	$35,094	Contract – Enhancement Phase II
2013	$21,400	Contract – Enhancement Phase III
Total	$98,465	

FY 2013 Budget:

Item	Quantity	Units	Unit Cost	Total
Contract Project supervisor	60	Hour	$75	$4,500
Contract Labor	250	Hour	$40	$10,000
Herbicide	15	Gallon	$155	$2,325
Native grass	450	Pound	$22	$9,900
Native plants	5500	Each	$3	$14,850
Total project cost				**$41,575**
Matching funds				$21,400
Total requested				**$20,175**

The project budget includes the project contract supervisor's time, and contract labor to apply herbicide, install plants, and native grass seed. Native grass and plant installation is essential to crowd out future invasions of RCG and maintain the diversity and integrity of native wet prairie.